

detector to receive light transmitted back by said fiber optic probe from reflection off the reagent pad end of said tip; (d) a processor to convert the light signal to the analyte concentration, and (e) a display to display the test results.

33. The device of claim 32, wherein the test tip is disposable.

34. The device of claim 32, wherein the reagent pad is a membrane impregnated with dry chemicals and enzymes.

35. The device of claim 32, wherein said reagent pad is a cast membrane which contains all the required chemicals and enzymes for a specified analysis.

36. The device of claim 32, wherein said fiber optic probe is made of glass/glass, or plastic/plastic, or glass/plastic.

Remarks

Applicant has rewritten the claims to define the invention more accurately and distinctly so as to overcome the technical rejections and define the invention patentably over the prior art.

Claim Rejections – 35 USC § 103

Claim 15-26 are rejected under 35 U.S.C 103(a) as being unpatentable over Curry in view of Pugh.

Applicant requests reconsideration and withdrawal of this rejection based on the following reasons:


1. The sensor disclosed by Curry is distinctively different from applicant's invention physically. Curry's sensor, as shown in FIG. 1, is a cylindrically shaped capsule filled with optically active chemicals. In order to do measurement of an analyte, such as blood glucose as described in FIG. 2, a multilayered cladding is required. All these complicated structures are not required for present invention. The sensor from the invention is simply a reagent impregnated membrane attached to an optical fiber.
2. Chemically, applicant's invention is distinctly different from Curry's. The invention uses regular dyes as signal reporters while Curry used fluorescent dyes as indicators. Since fluorescence operates very differently in principle from regular lights, it determined that Curry's sensors were to be made in those complicated structures as described.
3. Curry's sensor will not work with present invention. As described by Curry at column 6, line 60, the sensor has to be inserted directly into human or animal body, teaching away from minimally invasive diagnostic purpose as described by applicant's invention.
4. The prior-art references, Curry and Pugh, do not contain any suggestions that they be combined in the manner suggested.
5. Even if they were combined, they would not achieve the new and unexpected results as described in the application: a photometrical self-monitoring system uses only less than 0.3 μ L fluid sample to accomplish a test.

6. Regarding rejection to instant claims 16 and 22, since applicant's invention is new and different from Curry, "disposable" should be allowed in the claims as it was allowed in many other prior-art claims.
7. Regarding rejection to claims 17, 18, 23, and 25, applicant sees no similarities of these claims to what has been described by Curry at column 5, lines 29-43. To make Curry's sensor, chemicals have to be filled into a hollow tubing and enzymes have to be immobilized in a BSA matrix using glutaraldehyde, whereas present invention does not need any of these. Regarding rejection to claims 19 and 24, these two claims have been deleted. Applicant noticed the discussion about the fiber dimension and length cited from Curry and Pugh in the last Office Action. Since Curry and Pugh should not be legally combined as suggested, Applicant request reconsideration and withdrawal of the objections.

Conclusion

For all of the reasons given above, applicant submits that the claims are now in proper form and that the claims all define patentably over prior art. Therefore, applicant submits that this application is now in condition for allowance, which action he respectfully solicits.

Very respectfully,



Tom C. Xu

Applicant

21010 Sherman Drive
Castro Valley, CA 94552



Tel. (510) 888-9627

Certificate of Mailing: I certify that on the date below this document and referenced attachments, if any, will be deposited with the U. S. Postal Service as first class mail in an envelop addressed to:

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 26, 2004

Tom C. Xu, Applicant

A handwritten signature in black ink, appearing to read "Tom Xu", written over a horizontal line.

RECEIVED
FEB 03 2004
TC 1700